

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-8. (Canceled)

9. (Currently Amended) A combustor for combusting animal and vegetable oils, the combustor comprising;

a burner tile having a first end and a second end opposite the first end,

a burner nozzle,

means for supplying animal and vegetable oils through the burner nozzle, into the burner tile in the form of atomized fuel,

means for introducing a straight-line air current into the burner tile, which straightly flows in a vicinity of the burner nozzle from the first end to the second end of the burner tile at which there is an opening of the burner tile by operation of a blower, the straight-line air current flowing straightly through a central portion of the burner tile from the first end to the second end such that the straight-line air current extends through an entire region through which combustion occurs, and

means for forming a field of centrifugal force surrounding the straight-line air current within the burner tile by the effect of a turning air current, which is introduced into the burner tile from an opening end connected substantially tangential to an inner surface of a sidewall of the burner tile by operation of another blower,

fuel droplets of the atomized fuel being separated, taking various orbits in line with respective masses of the fuel droplets within the field of the centrifugal force, and being combusted.

10. (Previously Presented) The combustor according to claim 9, wherein the means for supplying animal and vegetable oils is arranged to deliver the atomized fuel toward an axially central area of the turning air current.

11. (Previously Presented) The combustor according to claim 9, further comprising means for adjusting a mass of the fuel droplets to be atomized, whereby through interaction between the straight-line current and the turning air current, the atomized fuel is prevented from contacting with an inner surface of the burner tile.

12. (Previously Presented) The combustor according to claim 9, wherein the burner tile is of a cylindrical configuration.

13. (Previously Presented) The combustor according to claim 9, further comprising means for adjusting a position of an ignition flame in a central area of the burner tile.

14. (Previously Presented) The combustor according to claim 9, further comprising means for adjusting a pressure and a flow rate of the straight-line air current relative to the turning air current.

15. (Previously Presented) The combustor according to claim 9, further comprising an ignition burner capable of providing sufficient heat energy for allowing continuous propagation of combustion of the animal and vegetable oils.